



Aircraft Turnaround

Operational Safety Policy

AFO-AS-POL-15-0001

Version 3

October 2022

MELBOURNE AIRPORT

Foreword

This **Operational Safety Policy** has been prepared by Melbourne Airport to meet the applicable requirements of the *Melbourne Airport Manual*, the *APAC Safety Management Standard* and also the *Part 139 (Aerodromes) Manual of Standards 2019*, made under division 139.C.4 of the *Civil Aviation Safety Regulations (CASR) 1998*.

Any external references made to regulations, standards and documents should be read in conjunction with this document. As these external references are in force from time to time and may be subject to change, the latest issues/amendments should be checked prior to using this document.

APAM will review this document regularly to ensure as far as possible that the information contained within is current, accurate and suitable for the intended purpose. Should any changes be found necessary, or where compliance with this **Operational Safety Policy** becomes impractical or impossible, the Head of Airfield is to be advised immediately.

Head of Airfield
Aviation
Australian Pacific Airports Melbourne

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Definitions

Please refer to the [Aeronautical Information Package](#) and the [CASA Website](#) for commonly used Aviation terms and abbreviations.

For additional definitions specific to Melbourne Airport, please visit www.melbourneairport.com.au/glossary.

Definitions specific to this document

Aircraft Pushback: the pushback of an aircraft by a tug, tractor or Power Push Unit (PPU) from a designated aircraft parking bay.

Aircraft Turnaround: the servicing of an aircraft from the time it enters a bay until the aircraft pushback has been completed.

Apron Emergency Call Point: a point where all airside staff can report an incident, accident or hazard directly to the Integrated Operations Centre (IOC).

ICAO Aircraft Code: aircraft are assigned a letter code based on the most restrictive of either the aircraft wingspan or the aircraft outer main gear wheel span (e.g. 737-8 Code C, B777-3 Code E or A380 Code F).

Emergency Shower & Eye Wash Facility: a facility provided for airside staff should they come in contact with fuel, lubricant or other hazardous substances.

En-route Supplements Australia (ERSA): an Airservices Australia publication that shows aerodrome information.

Hazard Area: the area marked with red diagonal hatchings, formally known as the Safety Area.

Jet Engine Ingestion: debris or other matter drawn into the inlet of a jet engine.

Propeller Wash: backwash from a propeller.

Servicing: the process of loading/unloading, refuelling, cleaning, maintenance and any other activity that is necessary for the aircraft during the turnaround phase.

Situational Awareness: “a person’s perception of the environment at a particular time and place” or more simply, “being alert to all that is happening around you”.

Tug Manoeuvring Area: an area where a pushback tug can be manoeuvred and positioned prior to the pushback of an aircraft.

Visual Docking Guidance System (VDGS): a system which gives information docking guidance to a pilot attempting to park an aircraft at an airport parking bay, usually via visual methods.

Vehicle Permit: an authority issued by Melbourne Airport for a vehicle to access airside. This must be affixed to the authorised vehicle.

Important Contacts

| Contact | Details |
|---------------------------------------|--------------|
| Senior Airside Safety Officer (Car 2) | 0418 335 985 |
| IOC | 03 9297 1624 |
| Head of Environment & Sustainability | 0473 300 570 |
| Airfield Operations Manager | 0477 577 430 |
| Emergency Notification to IOC | 03 9297 1601 |
| ARFF (emergency) | 03 9286 3199 |

Change Summary

| Version number | Date | Change Description |
|----------------|-----------------|--|
| 2 | 20 July 2022 | Scheduled review. Incorporation of the Aircraft De-Icing Policy. Changes to approved bays for de-icing. Aircraft towing restrictions. Aircraft marshalling update. Addition of Safety Near an APU, Unmanned Pushback Tugs, Bay Inspections, Reporting requirements and Aircraft Turnaround Audits. |
| 3 | 26 October 2022 | Addition of new section 6.4 detailing requirements for engine starts following an aircraft turnaround. |

1. Introduction

1.1. Background

The purpose of this policy document is to outline the Melbourne Airport minimum requirements for safe aircraft turnaround (refuelling, servicing and pushback) operations. The policy is part of, and should be read in conjunction with, the Airport Conditions of Use.

The policy applies to all aircraft operators, handling agents, refuelling companies, dispatchers and all other airside tenants and their staff involved on the airside at Melbourne Airport. Aircraft Turnaround procedures outlined in this document are to be followed in conjunction with each individual organisations' procedures and requirements.

The airline and/or their appointed ground handling agent must ensure that:

- Only those personnel that are suitably trained and qualified are to perform operational duties for aircraft turnarounds.
- A person is assigned to be "in command" of the operation.
- All personnel involved in the operation are briefed of their individual responsibilities.

Personnel are instructed on the hazards associated with aircraft movements and aircraft turnarounds.

1.2. Rationale

1.2.1. Aim

This Aircraft Turnaround policy has been produced in the interests of safety and security at Melbourne Airport. It details the safety rules for operators on the airside.

This policy aims to provide a safe environment for all airside staff, passengers and aircraft are to ensure that the requirements documented in this policy are relevant and capable of practical implementation by all staff.

1.2.2. Authority

The Aircraft Turnaround policy has been prepared by Australia Pacific Airports (Melbourne) Pty Limited, hereafter referred to as Melbourne Airport.

1.2.3. Scope

This document applies to aircraft turnarounds which all operators and their staff should follow to ensure a safe working environment on the airside at Melbourne Airport.

1.2.4. Alteration

Melbourne Airport may vary this Aircraft Turnaround policy at any time. A reference to the Aircraft Turnaround Policy shall be a reference to this Policy as distributed, published or otherwise declared to be in force by Melbourne Airport from time to time.

1.2.5. No Derogation

Nothing in the Aircraft Turnaround Policy shall derogate from any responsibility otherwise imposed by law, agreement or other policy, procedure or rule imposed by Melbourne Airport with respect to the same or similar subject matter as this policy.

2. Prior to Aircraft Arrival

2.1. Bay Inspection

A thorough inspection of the aircraft bay is to be conducted (on foot) to remove any obstructions or FOD. Any spills or hazards are to be reported immediately to the IOC on 9297 1624.

2.2. Equipment and Personnel Staging

Equipment and Personnel Staging are to be in accordance with the following Melbourne Airport Operational Safety Policies:

- Pedestrian Safety.
- Staging and Storage of Ground Servicing Equipment (GSE) and Unit Load Devices (ULD).

The following tasks are to be completed prior to an aircraft arrival:

- a) Confirm bay equipment availability and serviceability including chocks, cones, VDGS, refuelling hydrants (where applicable) and Fixed Ground Power (FGP).
- b) Apron equipment and vehicles are to be positioned behind the equipment storage and staging areas with the parking brakes applied prior to the arrival of the aircraft.
- c) Loaded transporters and dollies must have the load secured from movement by the use of locks, stops, rails or straps at all times, except when the load is being transferred to or from the equipment.
- d) All personnel must wear appropriate Personal Protective Equipment (PPE) in accordance with the Melbourne Airport Airside Condition of Use and the Pedestrian Safety policy.
- e) An appointed person **shall** be positioned adjacent to the emergency VDGS stop button to control the aircraft arrival.
- f) All personnel on the ramp must be aware of the location of the emergency fuel shut down buttons and the closest Apron Emergency Call Point.
- g) Aerobridge must show a green light and be correctly positioned.

- h) Pushback Warning Systems (red beacons) are to be activated, this is the responsibility of the Dispatcher or Duty Engineer. Warning systems are located at Bays Delta 8, Delta 12, Delta 2 and Hotel 1 for Code E movements.
- i) The VDGS is only to be activated once all applicable checks have been completed.
- j) Prepositioned pushback tugs at the front of the bay must be behind the red tug clearance line, where this line is not marked, pushback tugs are to be parked in a staging or storage area.

2.3. Aerobridge Clearance

The passenger aerobridge must be in the correct parking position. All access routes and doorways are to be clear. Safety Loop around aerobridge wheels is to be clear at all times.

2.4. Aircraft Marshalling or Visual Docking Guidance System

Where an aircraft parking bay is not equipped with a VDGS, or the VDGS is either unserviceable or not calibrated for a particular type of aircraft, a marshalling service must be provided in accordance with ICAO Annex 2 – Rules of the Air and the Melbourne Airport *Conditions of Use*.

- a) The VDGS is to be switched on or off by the aircraft operator or handling agent dispatchers.
- b) The aircraft operator or handling agent staff must ensure that the bay is unobstructed by vehicles or equipment and that the aerobridge is correctly positioned before the arrival of the aircraft.
- c) Switching on the VDGS only after these actions have been completed will then signify to the flight crew that it is safe for the aircraft to enter the bay.
- d) Once the VDGS has been switched on, the person responsible for the VDGS operation must not leave the control panel until the aircraft has parked, unless the VDGS is switched off again. The person responsible for activating the VDGS (unless delegated) is responsible for monitoring the arrival and activating the emergency stop should they see an unsafe occurrence during the docking sequence.
- e) Airside drivers must be alert to the presence of marshallers as their attention is firmly fixed on the aircraft.
- f) Personnel must not walk or drive between an inbound aircraft and a marshaller directing that aircraft under any circumstance.
- g) In the event the VDGS becomes unserviceable, manual marshalling is permitted. The Duty Engineer or Dispatcher is to ensure all equipment and vehicles are parked correctly with defined Staging and Storage Areas as to prevent any infringements to aircraft clearances, interference with Hazard Areas and aerobridge air-conditioning equipment.
- h) Melbourne Airport Airside Safety Officers (ASO) are not trained to perform marshalling services.

2.5. Aerobridge Serviceability

When an aerobridge is out of service or cannot be fully retracted and/or parked in its safe position, the bay is to be withdrawn from use unless stand-off parking is authorised. Enquiries or reports

regarding the serviceability of aerobridges should be forwarded to Melbourne Airport Faults on 9297 1001.

3. Aircraft Arrival

3.1. Positioning the Aircraft

The following procedures should be followed when positioning the aircraft onto the bay:

- a) The nose wheel must stop on the correct stop bar for the aircraft type.
- b) The tail of the aircraft must be within the parking clearance line.
- c) The pilot is to activate the park brake inside the flight deck whenever the aircraft is in a parked position and the engineer is to chock the nose wheel and/or the rear wheels.
- d) If an aircraft is overhanging the parking clearance line, the Senior Airside Safety Officer (Car2) is to be contacted.

3.2. Safe Distances from Aircraft

Servicing equipment such as refuelling tankers, hydrant trucks, GSE and general vehicles are required to maintain a safe distance of 7.5metres from an arriving aircraft. This includes the time when the aircraft is stationary however engines are running, and the anti-collision beacons are still operating.

3.3. Emergency Stop Procedures

The Emergency Stop button, located in the VDGS control panel, instantly warns pilots that there is an immediate safety threat to their aircraft or to personnel on the apron once activated. The aircraft should be stopped immediately to avert any danger. The need to make an Emergency Stop is indicated to the pilots by:

- The illumination of a flashing red electronic EMERGENCY STOP light.
- The word 'STOP' appearing on the digital display.

The type of indication is dependent on which VDGS has been fitted to the bay.

Any person (irrespective of employer or function) who recognises a threat to operational safety should activate the Emergency Stop button. The flight crew should then advise Air Traffic Control (ATC) that an Emergency Stop has been initiated on the bay.

The IOC must be notified of all emergency situations on 9297 1601 or via an Apron Emergency Call Point.

NOTE: In the event of a pushback being stopped and aircraft engines are running. The pilot is to turn off all engines and then request a tow back to the gate to prevent breakaway jet blast affecting adjacent bays.

3.4. Aircraft Towing

In the event an aircraft cannot meet the Local Traffic Regulations in ERSA, specifically where an aircraft, Code D or above, stops prior to docking on Bays D3, D4, D5, D6, D8, D12, D13, D15, H1, H2 and H3, then the aircraft must be towed to complete the docking (due to jet blast). For stands D7, D9, D10 and D11, Car2 may allow the aircraft to continue onto the bay at idle power.

For information related to aircraft taxiing or towing refer to the Local Traffic Regulations in ERSA and the [Melbourne Airport Pushback Procedures](#).

4. Aircraft Turnaround

4.1. Aircraft Chocking

The following procedures **shall** be followed after the aircraft has come to a complete stop:

- a) Chocking methods should be appropriate to the aircraft type and the requirements of individual aircraft operators.
- b) Chocks should never be removed without the permission of the flight crew or lead dispatcher/duty engineer.
- c) In adverse weather conditions (particularly during periods of high winds) procedures must be followed in accordance with aircraft type or aircraft operator's specific instructions.
- d) All jet aircraft should be chocked fore and aft of the nose wheel unless otherwise required by the aircraft manufacturer or operator.
- e) Pushback Warning System (red beacons) to be deactivated where installed.

4.2. Propeller Tethering

The following procedures **shall** be followed after the aircraft has come to a complete stop:

- a) Before the doors are opened the cabin/ground crew must ensure the propellers have completely stopped and areas adjacent to the aircraft are clear of any vehicles and other aircraft.
- b) The cabin/ground crew are to ensure the propeller tether and extension is fitted prior to passengers disembarking.
- c) A propeller tether shall be secured to the side of which passengers will disembark and board the aircraft (except for the Dash 8-400 series).
- d) During the aircraft turnaround, it is recommended that a propeller tether is also fitted to the starboard side propeller to protect ground staff.
- e) Propeller tethering is to be fitted to all operators with turbo prop aircraft including ad-hoc flights.

4.3. Approaching the Aircraft

The following procedures **shall** be followed after the aircraft has been chocked:

- a) Equipment must not move towards the aircraft until the parking brakes are on, chocks are in position, engines have been shut down, anti-collision beacons are switched-off and approval of the Dispatcher/Duty Engineer has been given.
- b) When approaching or leaving an aircraft, within the parking clearance line, ground servicing vehicles **shall** not be driven faster than normal walking speed (5km/h).
- c) Where GSE is such that the operator's vision is restricted, marshalling must be provided within a distance of 5 metres.
- d) Vehicles and GSE is to have parking brakes applied, with gear selector in park or neutral when positioned at the aircraft and stabilisers extended (where installed).
- e) GSE and other vehicles must not be left unattended while their engines are running.
- f) Vehicles must not park or drive under the wing or the fuselage of an aircraft (with the exception of refuelling vehicles) unless there is a company approved procedure for servicing that aircraft type.

4.4. Aerobridge/Stair Docking

The following procedures **shall** be followed when positioning the aerobridge or stairs to an aircraft:

- a) Passenger aerobridges and/ or stairs must not move towards the aircraft until the approval of the Dispatcher/Duty Engineer has been given.
- b) The aerobridge is to be operated in accordance with Melbourne Airport procedures and training.
- c) When the aerobridge or stairs is docked with the aircraft, there should be light contact between the aerobridge/ stairs and aircraft fuselage. Aerobridges require enough contact to allow auto mode to activate, where the canopy and auto leveller can extend.
- d) If the wind speed is greater than 100kmph (54kts) prior to the aircraft arrival, the (Apron Drive) aerobridges servicing the upper deck of an A380 is not to be pre-positioned or docked.
- e) If the (Apron Drive) aerobridge is docked onto the upper level of an A380 and in auto mode, boarding and disembarking of passengers may continue.
- f) If the aircraft is ready to depart, the (Apron Drive) aerobridge can be retracted enough for the pushback to continue (2-3 metres).
- g) The (Apron Drive) aerobridge should not taken back to the Home position until wind speeds reduce.

4.5. Passenger Movements

In accordance with the Melbourne Airport - *Airport Conditions of Use* and the Airside Operational Policy - *Pedestrian Safety*; the following procedures **shall** be followed when passengers are required to walk on the apron:

- a) Passenger movements on the apron between the aircraft and terminal building must be closely supervised at all times and the 'No Smoking' and no electrical equipment (including mobile phones) policy is to be strictly enforced.
- b) Child passengers must be strictly monitored by a supervising adult.

- c) The positioning of all vehicles and equipment is to allow an unobstructed pathway to and from the aircraft.
- d) Special needs wheelchairs, hi-lifts and/or ambulances should be in position prior to passengers disembarking.
- e) When passengers are embarking or disembarking, the route shall avoid any fuelling zone areas by following the designated pedestrian walkway and/or airline operator instructions.
- f) Passengers should not be on the apron while an aircraft movement is occurring close by.
- g) Vehicles are not permitted to drive on pedestrian walkways during embarking or disembarking.

4.6. Safety near an Auxiliary Power Unit

No vehicle or equipment above two metres shall be parked behind an aircraft's operating Auxiliary Power Unit (APU). It is recommended that vehicles never park behind an APU to prevent conflict occurring if an APU is inadvertently activated.

Aircraft Engineers shall ensure that an APU is not activated should there be an infringement at the rear of the aircraft.

4.7. Cargo Movements

The follow procedures **shall** be followed for cargo operations:

- a) Dangerous Goods and Hazardous Materials are to be handled in accordance with the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR) manual and the Melbourne Airport Operational Safety Policy - *Transfer of Explosive Cargo*.
- b) Handrails on conveyer belts, loaders and other elevated devices must be in the raised position unless otherwise stipulated by the aircraft owner/operation.
- c) Cargo loading is to be conducted in accordance with specific carrier procedures.
- d) Personnel should not walk or stand on a moving conveyer belt.
- e) Personnel should not walk on rollers or castors.

4.8. Animal Movements

All animal cargo movements are to be in accordance with the Melbourne Airport Operational Safety Policy - *Transfer of Livestock*.

4.9. Refuelling

Hydrant refuelling facilities are currently provided on most aircraft bays. All airside operations in the vicinity of aircraft refuelling **shall** be regulated by the following procedures:

4.9.1. Clear Exit Paths

Fuelling operators and ground handling staff shall ensure equipment is positioned to allow quick removal of fuelling equipment. Vehicles and GSE shall not be positioned in front of fuel vehicles which would require the vehicle to reverse.

4.9.2. Fuelling Zone

Aircraft APU which have an exhaust efflux discharging into the fuelling zone should (if required to be in operation during fuelling) be started before filler caps are removed or fuelling connections made, or as required by the manufacturer.

Vehicle engines must not be left running unnecessarily in the vicinity of refuelling operations and no vehicle must be left running under the aircraft's wings.

4.9.3. Emergency Fuel Shut Down Buttons

All staff must be familiar with the location and operation of the Emergency Fuel Shut Down buttons and how to contact the Aviation Rescue and Fire Fighting (ARFF) service. The ARFF may be contacted:

- Via the IOC on 9297 1601.
- Using an Apron Emergency Call Point, or
- Directly on 9286 3199.

Emergency Fuel Shut Down buttons are located on all aircraft parking bays and on-board refuelling vehicles. All airside workers are encouraged to push an Emergency Fuel Shut Down button if a genuine risk to the safety of staff, passengers, aircraft or property exists. Operation of a stop button will shut down all fuel lines to the Airport and will take some time to reactivate, which includes refuelling trucks and tankers. This will take some time to reactivate.

4.9.4. Fuelling Operation Precaution Guidelines

The aircraft operator should determine whether fuelling of the aircraft should take place with passengers embarking or disembarking and the method by which this is carried out.

The following procedures should be followed during all fuelling operations:

- a) The aircraft operator should ensure that all personnel working on, inside or in the immediate vicinity of the aircraft are made aware that fuelling is taking place.
- b) No handheld electronic equipment is permitted in the refuelling vicinity. This includes mobile phones, tablets and two-way radios.
- c) If a staff member is doused in fuel, clothes are to remain on the person until they have washed the fuel off under the deluge showers. This is to prevent static discharge from certain types of clothing materials.
- d) Care should be taken during refuelling in high summer temperature days, as the fuel may expand and may vent from the aircrafts wings resulting in a fuel spill on the apron.

All vehicles and equipment should be positioned to provide:

- As clear access as practicable to aircraft for ARFF vehicles.
- A clear route to allow their rapid removal from the aircraft in an emergency.
- An evacuation route from occupied portions of the aircraft, including chute deployment areas.
- Hose lines and electrical earthing cables are reasonably protected from vehicle movements.
- Adequate distance away from fuel vents.

4.9.5. Spill Response

Spill Response procedures should be implemented in accordance with this document, and the Melbourne Airport Operational Safety Policy - *Spill Prevention and Response*.

4.10. Servicing

Servicing may only proceed once the Aircraft is parked on the bay, chocked and with its engines and anti-collision beacons switched off.

Servicing aircraft on Taxiway Standoff Parking is not permitted unless prior approval is sought from the Airfield Operations Manager.

Operators of potable water tankers and toilet servicing vehicles must be vigilant that there is no spillage or leakage which may lead to subsequent freezing. The flushing of potable water tanks is not permitted on apron areas unless undertaken in a dedicated toilet disposal facility.

Elevating devices must not be elevated until positioned to service the aircraft.

Operators required to work at heights must adhere to the Occupational Health and Safety Regulations 2017, Part 3.3 Prevention of Falls.

Tasks that involve working from a height of 2 metres or more are considered high risk. These tasks must be identified and have controls put in place. Operators should do as much of the task, as possible, on the ground prior to working at height.

Tasks under 2 metres require safe work procedures to be developed and implemented to minimise risk.

4.11. Pre-Conditioned Air

Pre-Conditioned Air (PCA) is available at some gates. Staff operating this equipment must be certified. The PCA equipment must be stowed correctly after use. Failure to do will preclude the aerobridge from retracting off the aircraft.

4.12. Foreign Object Debris

No Foreign Object Debris (FOD) is to be deposited or left on any part of the airside. It is the direct responsibility of airside staff to ensure that the airside is as safe and clean as possible, and that all FOD is removed as soon as it is discovered. Great care must be exercised by all those working on the airside, particularly those working on aircraft, to ensure that no FOD remains after completing their operation.

5. De-Icing of Aircraft

5.1. Environmental Protection

Melbourne Airport has an extensive network of storm water drains that discharge directly into the surrounding water catchments of Moonee Ponds Creek, Deep Creek, Arundel Creek and Steele Creek.

Melbourne Airport is empowered to maintain environmental (disposal of waste) standards under the Airports (Environmental Protection) Regulations 1997 and the Environment Protection Act 2017.

All de-icing chemicals must be stored in an appropriately bunded storage area, in line with the Victorian Dangerous Goods (Storage and Handling) Regulations 2012.

De-icing products are generally glycol-based and contain corrosive properties that can cause significant negative impacts on waterway health, if discharged into catchments. All effluent generated from de-icing must be safely and correctly contained and disposed of as priority waste, as specified in the Victorian Environment Protection Regulations 2021.

All materials, other than stormwater, must be prevented from entering the airport storm water system to reduce the likelihood that surrounding catchments are contaminated. Under no circumstance should either concentrated or diluted, de-icing material be permitted to enter exposed stormwater drains.

5.2. De-Icing Requirements

Airline carriers/ground handlers will be required to develop an appropriate de-icing procedure that provides for minimal use of glycol-based de-icing products. This procedure will need to be pre-approved by the Melbourne Airport Head of Environment & Sustainability.

The procedures must provide for the protection of the storm water system through bunding, or some other form of containment, as well as a mechanism such as vacuuming to collect the effluent and clean the bay at the completion of the de-icing process.

All collected effluent must be transported offsite immediately or where this is impractical it must be appropriately stored in a bunded area on site, prior to it being appropriately disposed of.

5.3. De-Icing Approved Sites

Melbourne Airport Operations has conducted an assessment of the location of the open slot drains, in consideration of their proximity to an aircraft being parked on each bay. A determination has then been made as to the suitability of each site and a rating of low risk, high risk, or those where de-icing will not be permitted has been applied.

Providing the airline carrier or the handler takes appropriate steps to contain the effluent, such as within a bundled area surrounding the aircraft prior to the disposal of any de-icing effluent, the areas considered low risk are as follows:

| | | |
|-------------------------|---------|---|
| T1 | Bravo | Bays B22, B23, B25, B26, B27, B28, B30 |
| T1 | Charlie | Bays C2, C4, C6, C7, C8, C9, C10 |
| T2 | Delta | Bays D2, D4, D6, D8, D10, D12, D14, D16, D18, D20 |
| T3 | Echo | Bays E2, E4, E6, E8, E10 |
| T3 | Foxtrot | Bays F11, F12 |
| T4 | Golf | Bays G44, G46 |
| Freight Apron | Hotel | Bays H1 |
| Qantas Maintenance Base | | Aircraft wash up bay |

Subject to the satisfactory demonstration by the airline carrier/handler to Melbourne Airport, that the nominated process for containing, scrubbing, washing, vacuuming and extraction of de-icing effluent will not cause it to enter the storm water drainage system, the high-risk sites are considered as follows:

| | | |
|---------------|---------|--|
| T1 | Bravo | Bays B21, B24 |
| T1 | Charlie | Bays C1, C3, C11, C12 |
| T2 | Delta | Bays D13, D15 |
| T3 | Echo | Bays E1, E3, E5, E7 |
| T3 | Foxtrot | Bays F13, F14, F15, F16, F17, F18, F19 F20, F25, F26 |
| T4 | Golf | Bays G56, G58, G59, G60 |
| Freight Apron | Hotel | Bays H2 |

Sites/bays not listed in a table above are not approved for de-icing activities.

5.4. Spill Response

In the event of a de-icing material spillage or of a de-icing chemical entering the stormwater system, the airline carrier or ground handler must immediately notify the Melbourne Airport IOC on (613) 9297 1601 or via an apron emergency call point.

Operators must then also follow the procedures for spill response as outlined in the Airside Operational Policy – *Spill Prevention and Response*.

5.5. Airline Responsibilities

A copy of the relevant Material Safety Data Sheet (MSDS) for any de-icing chemicals intended to be used in any de-icing activity at Melbourne Airport, must firstly be forwarded to the Melbourne Airport Head of Environment & Sustainability Manager for consideration.

Any new potential de-icing fluids must firstly subject to a period of trial testing and the results provided to the Melbourne Airport Head of Environment & Sustainability and the Melbourne Airport Airfield Operations Manager (613) 9297 1742 prior to their acceptance for use on the airfield.

In the designated high-risk areas, the airline carrier or handler will be required to provide the Melbourne Airport Head of Environment & Sustainability Manager with details of the intended process for the bunding of open drains, scrubbing, washing, vacuuming and extraction of any de-icing effluent and storage, prior to its disposal off site.

Each airline carrier or handler must notify the Melbourne Airport IOC on (613) 9297 1624 prior to any de-icing activities being undertaken on any of the apron docking bays.

5.6. Staff Training

Each airline carrier / ground handler responsible for aircraft de-icing must ensure all their staff involved in the process are trained in the correct de-icing methods and clean up. A training program must be developed by each Company that covers such matters as environmental awareness, spill containment, safety hazards, approved de-icing materials, the clean-up process and effluent disposal.

5.7. Audits

Melbourne Airport staff may at any time conduct audits of airline de-icing procedures and their performance to ensure compliance with this Operational Safety Policy.

6. Aircraft Departure

6.1. Aircraft Pushback

The following procedures **shall** be followed for aircraft pushbacks:

- a) Only trained and authorised personnel or trainees under instruction may perform a pushback operation and they must be familiar with the required procedures before pushback commences.
- b) Only pushback's approved by Melbourne Airport using the current aircraft pushback procedure chart are permitted unless special instruction is given by Melbourne Airport or ATC (refer to the [Melbourne Airport website for Tow Bar Disconnect Points Map](#)).
- c) **Engine starts must comply with the requirements of subsection 6.4 below.**
- d) Where an aircraft is required to push back onto a taxiway, the pushback driver must hold an approved Level 3 Airside Driver Authority (ADA).

- e) Any vehicle engaged in a pushback onto a taxiway must be approved by Melbourne Airport to operate in a Level 3 area and must be fitted with a Veelo/callsign and a radio capable of communicating with ATC.
- f) Situational awareness must be maintained with the location of other persons and obstructions must be known at all times. The pushback should be stopped if safety is compromised at any stage.
- g) The dispatcher must closely monitor vehicle movements behind the aircraft just prior to pushback. Any incident during a pushback must be reported to Car2.
- h) The pushback team must ensure the safety of all those involved directly in and around pushback operations.
- i) To ensure good communication prior to a pushback or towing operation, the pushback driver and engineer/dispatcher, should be aware of the requirements of each parking bay layout and line markings.
- j) The aircraft tug operator must be in radio contact with the ATC, via the radio tuned to frequency 127.2 (Melbourne Delivery) during all towing and monitor 121.7 (Melbourne Ground) during pushback procedures.
- k) The tug operator or engineer/dispatcher must have the operational radio within reach. Operating a tug at the rear without a radio is not permitted.
- l) The maximum turning angle of the aircraft should be closely monitored to avoid over steering.
- m) All hand signals given by a dispatcher must be followed.
- n) Tugs are never to be left unattended when the vehicle engine is switched on.
- o) Rotating Beacons must be activated just prior to an aircraft pushback to provide airside drivers with adequate warning of an impending aircraft movement.

6.2. Commencement of the Pushback

6.2.1. Apron or Taxiway

The following procedures **shall** be followed during the pushback sequence:

- a) The correct tug, towbar and bypass pin should be used for the specific aircraft type and series to be pushed back.
- b) Prior to the commencement of pushback, a pre-departure walk around shall be undertaken to ascertain the safety of the proposed pushback.
- c) The area must be inspected on foot to ensure it is clear of any FOD.
- d) All radio communication should be in accordance with radio telephony standards.
- e) Chocks should only be removed at the request of the flight crew or dispatcher.
- f) All chocks should be removed, aerobridge retracted, and all equipment and personnel clear of the aircraft prior to commencing pushback.
- g) Airside vehicle warning system (red beacon) to be activated where installed.
- h) The dispatcher or engineer is only permitted to walk next to the tug for an apron pushback or pushback onto a taxiway adjacent to an Apron Service Road. For pushbacks that require to cross an intersecting taxiway, the dispatcher or engineer must enter the tug before crossing the intersection.
- i) Ensure safe operation of the tug when moving clear of the aircraft.

- j) For aircraft being positioned onto aircraft parking bays, the bay is to be clear of any obstructions.
- k) At completion of the pushback ensure that all vehicles and equipment are returned to appropriate staging or storage areas. The dispatcher or engineer is only permitted to walk back to the apron after apron pushbacks or pushback onto a taxiway adjacent to an Apron Service Road. For pushbacks that require to cross an intersecting taxiway, the dispatcher or engineer must return in the tug.

6.2.2. Unmanned Pushback Tugs

The use of remote-controlled pushback tugs should be in accordance with manufacturer and individual company's operational procedures. In addition, Melbourne Airport requires the following:

- a) The vehicle must have a Melbourne Airport Authority to Use Airside (AUA).
- b) Arrangements for the removal of the unit if it were to breakdown (e.g. whilst attached to aircraft, whilst on a taxiway, etc).
- c) Confirmation that the beacon will continue to operate if the vehicle breaks down.

Where a remote-controlled pushback tug is required to push an aircraft onto a taxiway the following procedures must be followed:

- a) The dispatcher in charge of the pushback must hold at least a current Level 3 ADA.
- b) The dispatcher must have headset communication with the Flight Crew at all times during the pushback.
- c) The dispatcher must have an operational radio to communicate with ATC within reach at all times.
- d) The tug must be equipped with a minimum of two chocks during all pushback procedures.
- e) Once the taxiway pushback is completed, the dispatcher must manually drive the tug to the parking bay.

6.2.3. Bay Inspection

Prior to departing the aircraft parking bay after a pushback, all personnel are to ensure:

- a) The bay is clear of FOD.
- b) Any spillages on the bay are cleaned up and spillages are reported to Melbourne Airport via the IOC on 9297 1601, via an Apron Emergency Call Point or via the Senior Airside Safety Officer (Car 2) on 0418 335 985.

6.2.4. Reporting

If an incident occurs during the pushback sequence the following procedures shall be followed:

- a) The tug should be stopped immediately, brakes applied, and the gear changed to neutral.
- b) Melbourne Ground should be contacted on 121.7. Melbourne Ground may then request assistance from the ARFF service and Senior Airside Safety Officer (Car 2).

- c) All accidents or incidents must be reported to Melbourne Airport either via the IOC or via Car 2.

6.3. Pushback Warning System

The “Airside Vehicle Warning System” has been installed in areas assessed as high-risk based on historical incident data. The system comprises a number of warning signs and lights that are activated by buttons located at the head each bay.

The warning signs are located, where possible, at each of the access points where vehicles enter the apron area, known as the vehicle holding point. The warning signs are supplemented by red warning lights, both on the signs, and on the edge of the apron. Drivers of vehicles should stop and give way to aircraft when the red warning lights are flashing.

Note: The Pushback Warning Systems only alert airside drivers of pushback activities only. Airside drivers should always exercise caution and maintain their Situational Awareness around aircraft operations.

6.3.1. Activation

The warning system is to be activated by the person in charge of the aircraft pushback i.e. dispatcher/duty engineer, prior to the engine start and commencement of an aircraft arrival/departure.

6.3.2. Deactivation

The pushback warning lights must be deactivated immediately following the arrival/departure of the aircraft. The warning system on Bay D8 and D12 will deactivate automatically after 5 minutes of operation.

6.4. Engine starts following an aircraft turnaround

Engine start requirements will differ between:

- The engine types fitted to aircraft, and/or
- The availability to power out markings from an aircraft parking position.

The following requirements must be followed to protect both personnel and facilities from the potentially damaging effects of jet blast, prop wash and rotor wash.

Note: Cross bleed starts are only permitted from approved locations.

Engine starts associated with the ground running of engines must comply with the latest version of the Ground Running of Aircraft Operational Safety Policy, available on the Melbourne Airport website.

6.4.1. Engine starts for aircraft with turbofan or turbojet engines during a pushback

This subsection applies to aircraft which are fitted with a turbofan engine types (both low and high bypass) or a turbojet engine types (including axial and centrifugal compressors).

Note: This section generally excludes turboprops and rotor craft which have internal turbine engines to drive an external propeller or rotor system.

Turbofan or turbojet aircraft may start one engine from an **Auxiliary Power Unit** at the commencement of the pushback or from a **Ground Power Unit** immediately prior. Subsequent engines may then be started using the **APU only** (if available). Once the engines are started, only idle power settings are permitted until the aircraft has reached the assigned Tow Bar Disconnect Point (TDP).

Note: Cross bleed starts are only permitted from approved locations. Please refer to both published Aeronautical Information Publication (AIP) and the pushback procedures, as published on the Melbourne Airport website, for further details.

Once the aircraft is ready to taxi out from the TDP, power settings which produce the minimum necessary thrust to ensure aircraft movement are to be used. Power settings should be returned again to minimum power settings as soon as possible, until the aircraft has cleared the apron environment including all apron edge taxiways.

6.4.2. Engine starts for propeller aircraft conducting power out manoeuvres

This subsection applies to propeller aircraft which are fitted with either a turboprop, electric or internal combustion engine types.

Note: This section generally excludes rotor craft and aircraft fitted with turbofan or turbojet engine types.

On aircraft parking positions where a power-out manoeuvre is permitted; propeller aircraft are permitted to start all engines on idle power. Propeller pitch settings for neutral thrust are to be used wherever possible for engine start.

Once the aircraft is ready to taxi out from an aircraft parking position, propeller pitch and power settings which produce the minimum necessary thrust for aircraft movement may be used. Power and propeller pitch settings should be returned again to minimum power settings as soon as possible, until the aircraft has cleared the apron environment including all apron edge taxiways.

Reverse propeller pitch settings (beta range) must not be used without the approval of the Senior Airside Safety Officer (Car 2).

6.4.3. Engine starts turboprop aircraft during a pushback

This subsection applies to turboprop aircraft that are subject to a push back out of an aircraft parking position.

Turboprop aircraft may start one engine from an **Auxiliary Power Unit** or **electric start** at the commencement of the pushback, or from a **Ground Power Unit** immediately prior, provided minimum power and propeller pitch settings are used. Subsequent engines may then be started during the pushback from an Auxiliary Power Unit or electric start.

Once the engines are started, only idle power and minimum pitch settings are permitted until the aircraft has reached the assigned TDP.

6.4.4. Small turbine aircraft conducting power out manoeuvres

This subsection applies to small turbine aircraft (i.e. business jets with less than 10 passenger seats) that seek to conduct a power out manoeuvre. A pushback or tow of these aircraft onto a taxilane or taxiway is to be used wherever possible.

A power out manoeuvre of a small turbine aircraft will only be permitted when:

- a pushback or tow of these aircraft is not possible,
- power out markings are available from the parking position,
- the expected jet blast for engine start and breakaway thrust is less than or equivalent to the prop wash from a large turbo prop aircraft, and
- when permitted by the Senior Airside Safety Officer Car 2 (0418 335 985).

6.4.5. Rotorcraft

This section is reserved.

7. Aircraft Turnaround Audits

Melbourne Airport Airside Safety Officers and Airfield Operations management perform aircraft turnaround audits daily to ensure the minimum requirements of this policy are met.

The audits cover the majority of functions of an aircraft turnaround to ensure Melbourne Airport infrastructure is being used in accordance with the Airport Conditions of Use. Melbourne Airport staff will take immediate action should they see a serious breach of this policy. Minor breaches will be recorded via the Melbourne Airport incident reporting system and the handling agent will be requested to correct deficiencies to this policy.

8. Further Information

For further information with regard to this **Operational Safety Policy**, please contact:

Airfield Support
03 8326 2525
airfieldsupport@melair.com.au

9. References

| Title |
|-----------------------------|
| Airport Conditions of Use |
| Transfer of Livestock |
| Transfer of Explosive Cargo |
| Pedestrian Safety |
| Pushback Procedures |

All operational safety policies can be found on the Melbourne Airport website:
<https://www.melbourneairport.com.au/Corporate/Working-here/Operational-information/Airfield-Operational-Policies>

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